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emission reductions achieved by the model program defined as follows:

- (1) *Network type*. Centralized testing.
- (2) *Start date*. 4 years after the effective date of designation and classification under the 8-hour ozone standard.
- (3) *Test frequency*. Annual testing.
- (4) *Model year coverage*. Testing of 1968 and newer vehicles.
- (5) *Vehicle type coverage*. Light duty vehicles, and light duty trucks, rated up to 8,500 pounds GVWR.
- (6) *Emission test type*. Idle testing (as described in appendix B of this subpart) for 1968–2000 vehicles; onboard diagnostic checks on 2001 and newer vehicles.
- (7) *Emission standards*. Those specified in 40 CFR part 85, subpart W.
- (8) *Emission control device inspections*. Visual inspection of the positive crankcase ventilation valve on all 1968 through 1971 model year vehicles, inclusive, and of the exhaust gas recirculation valve on all 1972 and newer model year vehicles.
- (9) *Evaporative system function checks*. None, with the exception of those performed by the OBD system on vehicles so-equipped and only for model year 2001 and newer vehicles.
- (10) *Stringency*. A 20% emission test failure rate among pre-1981 model year vehicles.
- (11) *Waiver rate*. A 3% waiver rate, as a percentage of failed vehicles.
- (12) *Compliance rate*. A 96% compliance rate.
- (13) *Evaluation date*. Enhanced I/M program areas subject to the provisions of this paragraph (i) shall be shown to obtain the same or lower emission levels for HC and NO_x as the model program described in this paragraph assuming an evaluation date set 6 years after the effective date of designation and classification under the 8-hour ozone standard (rounded to the nearest July) to within ± 0.02 gpm. Subject programs shall demonstrate through modeling the ability to maintain this percent level of emission reduction (or better) through their applicable attain-

ment date for the 8-hour ozone standard, also rounded to the nearest July.

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§ 51.352 Basic I/M performance standard.

(a) Basic I/M programs shall be designed and implemented to meet or exceed a minimum performance standard, which is expressed as emission levels achieved from highway mobile sources as a result of the program. The performance standard shall be established using the following model I/M program inputs and local characteristics, such as vehicle mix and local fuel controls. Similarly, the emission reduction benefits of the State's program design shall be estimated using the most current version of the EPA mobile source emission model, and shall meet the minimum performance standard both in operation and for SIP approval.

- (1) *Network type*. Centralized testing.
- (2) *Start date*. For areas with existing I/M programs, 1983. For areas newly subject, 1994.
- (3) *Test frequency*. Annual testing.
- (4) *Model year coverage*. Testing of 1968 and later model year vehicles.
- (5) *Vehicle type coverage*. Light duty vehicles.
- (6) *Exhaust emission test type*. Idle test.
- (7) *Emission standards*. No weaker than specified in 40 CFR part 85, subpart W.
- (8) *Emission control device inspections*. None.
- (9) *Stringency*. A 20% emission test failure rate among pre-1981 model year vehicles.
- (10) *Waiver rate*. A 0% waiver rate.
- (11) *Compliance rate*. A 100% compliance rate.
- (12) *Evaluation date*. Basic I/M programs shall be shown to obtain the same or lower emission levels as the model inputs by 1997 for ozone non-attainment areas and 1996 for CO non-attainment areas; and, for serious or worse ozone nonattainment areas, on each applicable milestone and attainment deadline, thereafter.

(b) *Oxides of nitrogen.* Basic I/M testing in ozone nonattainment areas shall be designed such that no increase in NO_x emissions occurs as a result of the program. If the Administrator finds, under section 182(b)(1)(A)(i) of the Act pertaining to reasonable further progress demonstrations or section 182(f)(1) of the Act pertaining to provisions for major stationary sources, that NO_x emission reductions are not beneficial in a given ozone nonattainment area, then the basic I/M NO_x requirement may be omitted. States shall implement any required NO_x controls within 12 months of implementation of the program deadlines required in § 51.373 of this subpart, except that newly implemented I/M programs shall include NO_x controls from the start.

(c) *On-board diagnostics (OBD).* For those areas required to implement a basic I/M program prior to the effective date of designation and classification under the 8-hour ozone standard, the performance standard shall include inspection of all model year 1996 and later light-duty vehicles equipped with certified on-board diagnostic systems, and repair of malfunctions or system deterioration identified by or affecting OBD systems as specified in § 51.357, and assuming a start date of 2002 for such testing. For areas required to implement basic I/M as a result of designation and classification under the 8-hour ozone standard, the performance standard defined in paragraph (e) of this section shall include inspection of all model year 2001 and later light-duty vehicles equipped with certified on-board diagnostic systems, and repair of malfunctions or system deterioration identified by or affecting OBD systems as specified in § 51.357, and assuming a start date of 4 years after the effective date of designation and classification under the 8-hour ozone standard.

(d) *Modeling requirements.* Equivalency of emission levels which will be achieved by the I/M program design in the SIP to those of the model program described in this section shall be demonstrated using the most current version of EPA's mobile source emission model and EPA guidance on the estimation of input parameters. Areas required to implement basic I/M programs shall meet the performance

standard for the pollutants which cause them to be subject to basic requirements. Areas subject as a result of ozone nonattainment shall meet the standard for VOCs and shall demonstrate no NO_x increase, as required in paragraph (b) of this section.

(e) *Basic performance standard for areas designated non-attainment for the 8-hour ozone standard.* Areas required to implement a basic I/M program as a result of being designated and classified under the 8-hour ozone standard, must meet or exceed the emission reductions achieved by the model program defined for the applicable ozone precursor(s):

- (1) *Network type.* Centralized testing.
- (2) *Start date.* 4 years after the effective date of designation and classification under the 8-hour ozone standard.
- (3) *Test frequency.* Annual testing.
- (4) *Model year coverage.* Testing of 1968 and newer vehicles.
- (5) *Vehicle type coverage.* Light duty vehicles.
- (6) *Emission test type.* Idle testing (as described in appendix B of this subpart) for 1968–2000 vehicles; onboard diagnostic checks on 2001 and newer vehicles.
- (7) *Emission standards.* Those specified in 40 CFR part 85, subpart W.
- (8) *Emission control device inspections.* None.
- (9) *Evaporative system function checks.* None, with the exception of those performed by the OBD system on vehicles so-equipped and only for model year 2001 and newer vehicles.
- (10) *Stringency.* A 20% emission test failure rate among pre-1981 model year vehicles.
- (11) *Waiver rate.* A 0% waiver rate, as a percentage of failed vehicles.
- (12) *Compliance rate.* A 100% compliance rate.
- (13) *Evaluation date.* Basic I/M program areas subject to the provisions of this paragraph (e) shall be shown to obtain the same or lower emission levels as the model program described in this paragraph by an evaluation date set 6 years after the effective date of designation and classification under the 8-hour ozone standard (rounded to the

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nearest July) for the applicable ozone precursor(s).

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§ 51.353 Network type and program evaluation.

Basic and enhanced I/M programs can be centralized, decentralized, or a hybrid of the two at the State's discretion, but shall be demonstrated to achieve the same (or better) level of emission reduction as the applicable performance standard described in either § 51.351 or 51.352 of this subpart. For decentralized programs other than those meeting the design characteristics described in paragraph (a) of this section, the State must demonstrate that the program is achieving the level of effectiveness claimed in the plan within 12 months of the plan's final conditional approval before EPA can convert that approval to a final full approval. The adequacy of these demonstrations will be judged by the Administrator on a case-by-case basis through notice-and-comment rule-making.

(a) *Presumptive equivalency.* A decentralized network consisting of stations that only perform official I/M testing (which may include safety-related inspections) and in which owners and employees of those stations, or companies owning those stations, are contractually or legally barred from engaging in motor vehicle repair or service, motor vehicle parts sales, and motor vehicle sale and leasing, either directly or indirectly, and are barred from referring vehicle owners to particular providers of motor vehicle repair services (except as provided in § 51.369(b)(1) of this subpart) shall be considered presumptively equivalent to a centralized, test-only system including comparable test elements. States may allow such stations to engage in the full range of sales not covered by the above prohibition, including self-serve gasoline, pre-packaged oil, or other, non-automotive, convenience store items. At the State's discretion, such stations may also fulfill other functions typically carried out by the State such as renewal of vehicle registration and

driver's licenses, or tax and fee collections.

(b) [Reserved]

(c) *Program evaluation.* Enhanced I/M programs shall include an ongoing evaluation to quantify the emission reduction benefits of the program, and to determine if the program is meeting the requirements of the Clean Air Act and this subpart.

(1) The State shall report the results of the program evaluation on a biennial basis, starting two years after the initial start date of mandatory testing as required in § 51.373 of this subpart.

(2) The evaluation shall be considered in establishing actual emission reductions achieved from I/M for the purposes of satisfying the requirements of sections 182(g)(1) and 182(g)(2) of the Clean Air Act, relating to reductions in emissions and compliance demonstration.

(3) The evaluation program shall consist, at a minimum, of those items described in paragraph (b)(1) of this section and program evaluation data using a sound evaluation methodology, as approved by EPA, and evaporative system checks, specified in § 51.357(a) (9) and (10) of this subpart, for model years subject to those evaporative system test procedures. The test data shall be obtained from a representative, random sample, taken at the time of initial inspection (before repair) on a minimum of 0.1 percent of the vehicles subject to inspection in a given year. Such vehicles shall receive a State administered or monitored test, as specified in this paragraph (c)(3), prior to the performance of I/M-triggered repairs during the inspection cycle under consideration.

(4) The program evaluation test data shall be submitted to EPA and shall be capable of providing accurate information about the overall effectiveness of an I/M program, such evaluation to begin no later than 1 year after program start-up.

(5) Areas that qualify for and choose to implement an OTR low enhanced I/M program, as established in § 51.351(h), and that claim in their SIP less emission reduction credit than the basic performance standard for one or more pollutants, are exempt from the requirements of paragraphs (c)(1)